

Dosage Adjustments for ARV–ARV Drug Interactions / July 2006

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Many antiretroviral medications used to treat HIV infection, particularly certain protease inhibitors and nonnucleoside reverse transcriptase inhibitors, interact with other antiretroviral agents. These interactions are usually due to effects on hepatic drug metabolism and can cause clinically significant alterations in serum drug concentrations. Certain antiretroviral agents require dosage adjustment (or pharmacokinetic enhancement) when coadministered, and some combinations are contraindicated. This table shows possible adult dosage adjustments for interacting antiretroviral medications.

For further information, see *Database of Antiretroviral Drug Interactions*. For information about pharmacokinetic enhancement ("boosting") of protease inhibitors by ritonavir, see *Dosing for Ritonavir-Boosted Protease Inhibitors*. Both are online at <http://hivinsite.ucsf.edu/InSite?page=ar-00-00-02>.

Drug	Coadministered Drug	Dosage Adjustment
Amprenavir		As of June 2005, no longer manufactured for adult dosing. Consider fosamprenavir.
Atazanavir	Darunavir	Atazanavir 300 mg QD; darunavir 600 mg BID + ritonavir 100mg BID
	Efavirenz	Atazanavir 300 mg QD + ritonavir 100 mg QD; efavirenz 600 mg QD
	Nevirapine	Dosage adjustment of atazanavir not established; consider atazanavir 300 mg QD + ritonavir 100 mg QD; nevirapine 200 mg BID
	Saquinavir	Dosage adjustment not established; consider atazanavir 300 mg QD + ritonavir 100 mg QD; saquinavir 1,600 - 2,000 mg QD
	Tenofovir	Atazanavir 300 mg QD + ritonavir 100 mg QD; tenofovir 300 mg QD
	Tipranavir	Not recommended
Darunavir	Atazanavir	Darunavir 600 mg BID + ritonavir 100 mg BID; atazanavir 300 mg QD
	Efavirenz	Dosage adjustment of darunavir and efavirenz not established; use with caution
	Indinavir	Dosage adjustment of darunavir and indinavir not established; not recommended
	Lopinavir/ritonavir	Dosage adjustment of darunavir and lopinavir/ritonavir not established; not recommended
	Nevirapine	Dosage adjustment not necessary
	Saquinavir	Dosage adjustment of darunavir and saquinavir not established; not recommended
	Fosamprenavir Nelfinavir Tipranavir	Combination of darunavir and these protease inhibitors has not been studied and is not currently recommended
Delavirdine	Indinavir	Delavirdine 400 mg TID; indinavir 600 mg Q8H
	Saquinavir	Delavirdine 400 mg TID; saquinavir 800 mg TID (monitor LFTs)
Didanosine	Tenofovir	For body weight >60 kg, didanosine 250 mg QD; tenofovir 300 mg QD For body weight <60 kg, didanosine 200 mg QD; tenofovir 300 mg QD
Efavirenz	Atazanavir	Efavirenz 600 mg QD; atazanavir 300 mg QD + ritonavir 100 mg QD
	Darunavir	Dosage adjustment of efavirenz and darunavir not established; use with caution
	Fosamprenavir	Efavirenz 600 mg QD; fosamprenavir 700 mg BID + ritonavir 100 mg BID or Efavirenz 600 mg QD; fosamprenavir 1,400 mg QD + ritonavir 300 mg QD (QD dosing of fosamprenavir is not recommended for protease inhibitor-experienced patients)
	Indinavir	Efavirenz 600 mg QD; indinavir 800-1,000 mg BID + ritonavir 100-200 mg BID
	Lopinavir/ritonavir	Efavirenz 600 mg QD; lopinavir/ritonavir 400/100 mg (2 tablets) BID (for ARV-naive patients) or 600/150 (3 tablets) BID (for ARV-experienced patients)
	Saquinavir	Dosage adjustment of saquinavir not established; consider efavirenz 600 mg QD; saquinavir 1,000 mg BID + ritonavir 200 mg BID
	Tipranavir	Dosage adjustment not necessary.





Drug	Coadministered Drug	Dosage Adjustment
Fosamprenavir	Darunavir	Not studied; not recommended
	Efavirenz	Fosamprenavir 700 mg BID + ritonavir 100 mg BID; efavirenz 600 mg QD or Fosamprenavir 1,400 mg QD + ritonavir 300 mg QD; efavirenz 600 mg QD (QD dosing of fosamprenavir is not recommended for protease inhibitor-experienced patients)
	Lopinavir/ritonavir	Dosage adjustment of fosamprenavir and lopinavir/ritonavir not established; consider fosamprenavir 1400 mg BID; lopinavir/ritonavir 600/150 mg (3 tablets) BID
	Nevirapine	Dosage adjustment of fosamprenavir not established; consider fosamprenavir 700 mg BID + ritonavir 100 mg BID; nevirapine 200 mg BID or Fosamprenavir 1,400 mg QD + ritonavir 300 mg QD; nevirapine 200 mg BID (QD dosing of fosamprenavir is not recommended for protease inhibitor-experienced patients)
	Saquinavir	Dosage adjustment not established; consider fosamprenavir 700 mg BID + ritonavir 100-200 mg BID; saquinavir 1,000 mg BID
	Tipranavir	Not recommended
Indinavir	Darunavir	Dosage adjustment of indinavir and darunavir not established; not recommended
	Delavirdine	Indinavir 600 mg Q8H; delavirdine 400 mg TID
	Efavirenz	Indinavir 800-1,000 mg BID + ritonavir 100-200 mg BID; efavirenz 600 mg QD
	Lopinavir/ritonavir	Indinavir 600-800 mg BID; lopinavir/ritonavir 400/100 mg (3 capsules) BID
	Nelfinavir	Indinavir 1,200 mg BID; nelfinavir 1,250 mg BID
	Nevirapine	Consider indinavir 800-1,000 mg BID + ritonavir 100-200 mg BID; nevirapine 200 mg BID
	Tipranavir	Not recommended
Lopinavir/ ritonavir	Darunavir	Dosage adjustment of lopinavir/ritonavir and darunavir not established; not recommended
	Efavirenz	Lopinavir/ritonavir 400/100 mg (2 capsules) BID (ARV-naive patients) or 600/150 (3 tablets) BID (for ARV-experienced patients); efavirenz 600 mg QD
	Fosamprenavir	Dosage adjustment of fosamprenavir and lopinavir/ritonavir not established; consider lopinavir/ritonavir 600/150 mg (3 tablets) BID; fosamprenavir 1400 mg BID
	Indinavir	Lopinavir/ritonavir 400/100 mg (2 tablets) BID; indinavir 600-800 mg BID
	Nevirapine	Lopinavir/ritonavir 400/100 mg (2 tablets) BID; nevirapine 200 mg BID
	Saquinavir	Lopinavir/ritonavir 400/100 mg (2 tablets) BID; saquinavir 1,000 mg BID
	Tipranavir	Not recommended
Nelfinavir	Darunavir	Not studied; not recommended
	Indinavir	Nelfinavir 1,250 mg BID; indinavir 1,200 mg BID
	Tipranavir	Not recommended
Nevirapine	Atazanavir	Dosage adjustment of atazanavir not studied; consider nevirapine 200 mg BID; atazanavir 300 mg QD + ritonavir 100 mg QD
	Darunavir	Dosage adjustment not necessary
	Fosamprenavir	Dosage adjustment of fosamprenavir not established; consider nevirapine 200 mg BID; fosamprenavir 700 mg BID + ritonavir 100 mg BID or Nevirapine 200 mg BID; fosamprenavir 1,400 mg QD + ritonavir 300 mg QD (QD dosing of fosamprenavir is not recommended for protease inhibitor-experienced patients)
	Indinavir	Consider nevirapine 200 mg BID; indinavir 800-1,000 mg BID + ritonavir 100-200 mg BID
	Lopinavir/ritonavir	Nevirapine 200 mg BID; lopinavir/ritonavir 400/100 mg (2 tablets) BID (for ARV-naive patients) 600/150 mg (3 tablets) BID (for ARV-experienced patients)
	Saquinavir	Dosage adjustment of saquinavir not established; consider nevirapine 200 mg BID; saquinavir 400 mg BID + ritonavir 400 mg BID
	Tipranavir	Dosage adjustment not established.

Drug	Coadministered Drug	Dosage Adjustment
Saquinavir	Atazanavir	Dosage adjustment not established; consider saquinavir 1,600 mg QD + atazanavir 300 mg QD + ritonavir 100 mg QD
	Darunavir	Dosage adjustment of saquinavir and darunavir not established; not recommended
	Delavirdine	Saquinavir 800 mg TID; delavirdine 400 mg TID (monitor LFTs)
	Efavirenz	Dosage adjustment of saquinavir not established; consider saquinavir 1,000 mg BID + ritonavir 200 mg BID; efavirenz 600 mg QD
	Fosamprenavir	Dosage adjustment not established; consider saquinavir 1,000 mg BID + ritonavir 100-200 mg BID; fosamprenavir 700 mg BID
	Lopinavir/ritonavir	Saquinavir 1,000 mg BID; lopinavir/ritonavir 400/100 mg (2 tablets) BID
	Nevirapine	Dosage adjustment of saquinavir not established; consider saquinavir 400 mg BID + ritonavir 400 mg BID; nevirapine 200 mg BID
	Tipranavir	Not recommended
Tenofovir	Atazanavir	Tenofovir 300 mg QD; atazanavir 300 mg QD + ritonavir 100 mg QD
	Didanosine	Tenofovir 300 mg QD; didanosine 250 mg QD (for body weight >60 kg) Tenofovir 300 mg QD; didanosine 200 mg QD (for body weight <60 kg)
Tipranavir	Atazanavir Darunavir Fosamprenavir Indinavir Lopinavir/ritonavir Nelfinavir Saquinavir	Combination of tipranavir and other protease inhibitors is not currently recommended
	Efavirenz Nevirapine	Dosage adjustment not necessary.

List of abbreviations: BID = 2 times daily LFT = liver function tests Q8H = every 8 hours QD = once daily TID = 3 times daily